Posted: Tue, Oct 6, 1992 5:17 PM EDT Msg: CJJC-1727-2852
From: LCARPENTER
To: MODIS.DATA.TEAM
Subj: MODIS SDST Minutes

MODIS Science Data Support Team (SDST) Meeting Minutes 10/02/92

ATTENDEES: Tom Bryant, Lloyd Carpenter, Paul Chan, Larry Fishtahler, Al Fleig, Tom Goff, Liam Gumley, Rick Hatfield, Paul Hubanks, Jeff Olsenholler, Jim Ormsby, J. J. Pan, Shahin Samadi, Steve Unger, Will Webster

NEXT MEETING:	Date	Time	Building	Room
	Friday, October 09	10:00 am	22	G95

TOPICS:

1. MODIS AIRBORNE SIMULATOR (MAS): Liam Gumley reported on MAS data processing and software development. Si-Chee Tsay pointed out the need for exoatmospheric solar spectral irradiance data for the visible/near-infrared channels in the MAS Level-1B data sets. Liam proposes to compute, and include, an Earth-orbit corrected solar spectral irradiance for each MAS channel weighted by the spectral response of that channel. He also proposes to provide the temperature-to-radiance conversion tables which are computed as part of the calibration process. This would allow users to convert from radiance in the infrared channels to temperature by interpolation.

Liam received results of noise computations from Chris Moeller at Wisconsin which are consistent with his own results.

2. MAS PROTOTYPE LEVEL-2 SHELL CONCEPT: Liam Gumley and J.J. Pan discussed the MAS prototype Level-2 shell concepts and techniques. Emphasis will be placed on input/output, operational control mechanisms, data flows, algorithm interactions, scheduling, and efficiency. The purpose is not to develop software for generating valid science data products. The prototype will be implemented on a Unix system in ANSI-C. The individual algorithms will be implemented in either FORTRAN-77 or ANSI-C. The CFORTRAN system will be used to interface FORTRAN algorithms with the controlling shell. The input data will be MAS Level-1B flight lines. The output data will be in HDF. Ancillary data will include land/sea topography, total ozone climatology and others as needed. The details of the implementation remain to be determined.

3. C AND FORTRAN INTERFACE: J.J. Pan presented three sample programs which illustrate the interface between C and FORTRAN on the SGI Iris system. The first program has five examples which illustrate the general rules, character string handling, accessing common blocks, array handling, and handling complex data. The last two programs are based on Liam Gumley's program which demonstrates reading a MAS NetCDF file. The last program uses the CFORTRAN tool to handle the interface.

4. MODIS LEVEL-1 SOFTWARE DESIGN: Tom Goff discussed various aspects of porting software to the MODIS HP 9000/730. He also presented an updated MODIS Level-1B schedule generated using Microsoft Project.

5. MODIS LEVEL-1 EARTH NAVIGATION SOFTWARE: Paul Hubanks discussed the USGS software used for the geolocation of AVHRR data, which has been approved for release to the MODIS SDST. The code will be ported to the LTP/VAX in the immediate future.

6. PROTOTYPE ALGORITHMS: Paul Hubanks is also making arrangements to get Yoram Kaufman's Aerosol Optical Depth code and selected Mike King algorithms currently running on MAS data.

7. MODIS SCIENCE TEAM MEETING: For the next two weeks emphasis will be placed on getting ready for the MODIS Science Team Meeting.

ACTION ITEMS:

06/12/92 [Tom Goff, Carroll Hood] Develop separate detailed schedules using Microsoft Project for Level-1A and -1B software design and development. (Updated results for Level-1B were included in the handout.) STATUS: Open. Due Date: 07/10/92

07/31/92 [Tom Goff, Ed Masuoka, Al Fleig] Develop the purpose and requirements for a packet simulator. Get more information on the packet simulator being developed by SBRC. (An updated requirements specification was included in the handout on 09/04/92. A copy, with a cover letter, should be sent to Jerry Hyde of SBRC for coordination with their requirements.) STATUS: Open. Due Date: 09/04/92

10/02/92 [Team] Prepare presentation materials for the MODIS Science Team Meeting. STATUS: Open. Due Date: 10/16/92